Cite this article as:
R E Meyer and S M Sotsky
Managed care and the role and training of psychiatrists
*Health Affairs* 14, no.3 (1995):65-77
doi: 10.1377/hlthaff.14.3.65

The online version of this article, along with updated information and services, is available at:
http://content.healthaffairs.org/content/14/3/65

For Reprints, Links & Permissions:
http://content.healthaffairs.org/1340_reprints.php

Email Alertings:
http://content.healthaffairs.org/subscriptions/etoc.dtl

To Subscribe:
https://fulfillment.healthaffairs.org

Not for commercial use or unauthorized distribution
MANAGED CARE AND THE ROLE AND TRAINING OF PSYCHIATRISTS

by Roger E. Meyer and Stuart M. Sotsky

Prologue: While the entire physician workforce is experiencing profound changes brought about by the growth of managed care psychiatry faces some unique challenges. Psychiatrists’ roles in managed care settings often have been restricted to those of “consultant, pharmacotherapist, and inpatient case manager,” in part because of efforts to contain costs. The authors of this paper advocate a broader view that considers psychiatrists’ contribution to the overall health care system: “[P]sychiatry augments efforts to reduce lengths-of-stay and uncompensated care, permits treatment of difficult behavioral management cases, and collaborates with the complex, costly cases of combined physical and mental illness.” The growth of managed care also has important implications for psychiatrist training and academic psychiatry departments. The authors believe that managed care organizations and academic psychiatry departments have common interests: Both have a stake and an essential role to play in demonstrating cost-effectiveness and quality of care and both have a stake in the development of relevant and effective educational programs. The authors emphasize the importance for psychiatrists of collaboration, in both clinical practice and training, with other disciplines, especially primary care. At the time this paper was prepared, Roger Meyer, a physician, was vice-president for medical affairs, Walter Bloedorn Professor of Administrative Medicine, and professor of psychiatry at The George Washington University (GWU) Medical Center in Washington, D.C. He is now a senior scholar at the Association of Academic Health Centers. Meyer received his medical degree from Harvard. Stuart Sotsky, also a physician, directs the Division of Ambulatory care of the Department of Psychiatry and Behavioral Sciences at GWU Medical Center. He received his medical degree and a master’s degree in public health from The Johns Hopkins University in Baltimore, Maryland.
Abstract: While each sector of medical practice and academic medicine confronts the reality of a changing economic environment driven by managed care, psychiatry faces some of the most difficult challenges in defining the future roles and training of psychiatrists. In this paper we describe the challenges and opportunities for psychiatry in this new era, as well as some of the unique problems facing academic psychiatry departments as they seek to fund their academic mission.

The rapid and dramatic changes occurring in the U.S. health care system present a serious challenge to psychiatry because of their impact on the traditional roles and training of psychiatrists. Over the past decade concerns about the cost of health services have led away from an indemnity insurance model toward prospective payment models in which risk is shared between insurers and providers. This period has been marked by a proliferation of organized health care delivery systems, which depend on managing the use of services and adopting more efficient patterns of clinical practice. These new systems of care management have affected the autonomy of psychiatrists and the prevailing clinical models of treatment.

The Role Of Psychiatrists In Managed Care

The early wave of managed care programs for the treatment of mentally ill and addicted patients relied predominantly on cost containment measures. These included barriers to access (such as gatekeepers and exclusion of severely and chronically mentally ill persons), benefit limitations on length and type of treatment, external utilization review, and extensive use of less expensive nonphysician mental health professionals. These measures questioned the clinical judgment of individual psychiatrists, threatened their professional autonomy, and complicated the continuity of patient care. Psychiatrists were relegated to the limited roles of consultant, pharmacist, and inpatient case manager. The major focus appeared to be on the relative cost of psychiatrists without regard to their possible value to the health care system as a whole and to broader potential cost containment strategies (given the prevalence of untreated mental and addiction disorders and the potential contribution of these disorders to disability, illness, and excessive use of the health care system).

The limited role for psychiatrists may have its origins in the traditional health maintenance organization (HMO), which offered limited mental health and addiction treatment services within the general health care system. HMOs emphasized the role of the primary care physician and restricted access to specialists, including psychiatrists, through gatekeeping. In the best of these organizations, mental health services were delivered by a team comprising a primary care physician, who could provide medication, and a psychologist or social worker, who could provide psychotherapy.
More recently, a growing literature has highlighted the difficulties that primary care physicians face in addressing the needs of mentally ill and addicted patients. Recent health services research has shown that primary care physicians in a general medical setting have a lower rate of recognition of mental and addiction disorders and less clinical effectiveness than do psychiatrists in a mental health setting. Primary care physicians, although well trained generally in clinical pharmacology, have limited training in the sophisticated selection, administration, and monitoring of psychotropic medication. They receive virtually no training in office counseling or psychotherapy. Finally, the financial and time disincentives of primary care practice do not readily permit the time-intensive clinical interview process that is essential to the detection and evaluative understanding of mental illness, its course, and its determinants.

Nevertheless, many patients in primary care settings have acute, uncomplicated, and responsive mental illnesses that can be treated by a properly trained primary care physician. Some patients who have had a course of psychiatric treatment would be well served by follow-up monitoring by a primary care physician. For these reasons, psychiatrists need to strengthen both clinical and training relationships with primary care practitioners and to study the effectiveness of a collaborative model with them. This represents an important opportunity for academic psychiatry. Also, if primary care physicians are to play a more effective role in the diagnosis, treatment, and referral of patients with mental and addiction disorders, the education of these physicians will need to attend to these issues.

Recently, some HMOs and managed behavioral health care programs have eliminated the requirement of primary care authorization for mental health services. This model could prove to be most cost-effective, in that patients who have identified the need can get direct access to mental health service providers, without the approval of a primary care gatekeeper. In the near term, a mixed model for access to mental health services likely will become more common. Some patients will receive these services from primary care physicians (backed up by knowledgeable consultants), while others will receive these services from designated psychiatrists and other mental health care providers within the health care network.

**Clinical role.** Managed mental health care has brought about a dramatic shift in patterns of service use. Patients are directed to the least restrictive, least expensive level of care required at each phase of illness, with an emphasis on alternatives to inpatient care and an expansion of ambulatory services. Inpatient care is reserved for those who need safety, shelter, and medical and nursing services twenty-four hours a day, and is oriented to crisis intervention and stabilization. This represents a major shift in the goals of inpatient psychiatric care. The impact of this change in treatment
philosophy needs to be carefully evaluated for all types of psychiatric patients; comparative outcome studies have not yet been done. For the moment, the change is being driven solely by cost savings.

Concurrently, within the best managed mental health care settings, the clinical treatment model in ambulatory settings has shifted toward time-effective modalities of treatment and modular or sequential treatment planning. This model emphasizes time-limited, episode-based segments of treatment with strategic or goal-oriented objectives. Treatment is aimed at remission of acute symptoms, stabilization, and regained functioning. In this context, patients with recurrent or chronic disorders typically receive intermittent courses of brief individual or family psychotherapy and less intensive maintenance treatment or group psychotherapy, rather than continuous long-term individual psychotherapy. The concept stresses provision of the highest-quality care within resource limits and continuity of the clinician or team providing care.

In our judgment, having a psychiatrist in a central role in the clinical delivery system is particularly valuable in the management of high-risk, severely ill patients who use a lot of services across treatment settings. Such patients may require skillful crisis intervention, acute pharmacotherapy, drug detoxification, and management of suicidal, destructive, or impulsive behavior. Among mental health or primary care providers, psychiatrists are best equipped to integrate the full range of interventions needed to care for such patients because of their background in medicine, their clinical training, and their knowledge base in the psychological and social sciences. Psychiatrists are able to provide a range of services within a variety of settings, including especially alternatives to prolonged inpatient stays and emergency department visits. Programs that have sought to minimize the role of psychiatrists risk excessive and inappropriate use of emergency rooms and hospitals, which would drive up costs for the system as a whole.

In a managed care system, in which initial treatment decisions and interventions can determine clinical outcomes and costs, psychiatrists should play a critical leadership role on the multidisciplinary mental health team. By having psychiatrists who are at financial risk in the program undertake review and approval of treatment plans and authorization of level of care, the most appropriate and effective pharmacological and psychosocial interventions will be selected to meet the clinical needs of individual patients. Through active clinical collaboration with other mental health team members, the psychiatrist can facilitate rapid access to the appropriate level of care, permit more intensive outpatient management of severely disturbed patients and families in crisis, and divert patients from unnecessary hospitalization. Arrangements that permit greater continuity of care across levels of treatment can yield shorter lengths of hospital stay.
and reduce the risk of relapse and readmission.

We believe that the debate about whether psychiatrists should provide and be reimbursed for psychotherapy in managed care systems, in addition to psychologists and social workers, is misdirected. The question should not be what type of treatment but what type of patient is best served by a psychiatrist, rather than another mental health professional. Psychiatrists are best prepared to work with the severely and chronically ill and to integrate biological and psychological interventions. For patients with bipolar affective disorder or recurrent depressions, for example, early, combined, and coordinated psychosocial and drug interventions may limit an episode or prevent a relapse and its serious consequences. In other cases, such as severe personality disorders, integrated treatment by a single clinician may be needed to avoid potential negative clinical consequences of divided care. For other patients, coordinated treatment by a psychiatrist and another mental health professional may be satisfactory, provided there is adequate teamwork and communication.

Psychiatric evaluation and medical management of mental illness should be distinguished from psychotherapy and exempted from existing mental health benefit limits in managed care programs. It is cost-effective, for the reasons already described, to treat these services like other medical services, as Medicare has done since 1987 and as in some HMOs, such as the Harvard Community Health Plan and the George Washington University Health Plan. There is a lesson to be learned from the exclusion of psychiatrists from their roles as clinical team leaders, administrators, and psychotherapists in community mental health centers and state hospitals over the past thirty years. In many settings they became little more than prescription writers for large numbers of chronic patients. As private-sector mental health systems continue to limit the role of psychiatrists, they should bear in mind the ultimate impact on patients.

Administrative role. In the more recent wave of managed care development, behavioral health care services are provided in independent “carve-outs,” separate from the general health care system. In this model, there has been a movement toward arrangements of shared risk and management with selected provider groups whose practices are compatible with the clinical model and the utilization expectations of managed care. Psychiatrists have the opportunity to redefine their role from providers to administrative managers by sharing risk with insurers or managed care companies. By accepting part of the financial risk in return for direct management of mental health care delivery, psychiatrist group practices, hospitals, and academic departments can regain authority and control over clinical services and resource allocation to assure high-quality care. In the most enlightened versions of a fully at-risk managed care model, such as capitation,
authority for treatment planning, utilization review, and authorization decisions is vested in at-risk psychiatrist-managers, who accept responsibility for costs. This role integrates the responsibilities of clinical care and cost containment, rather than splitting them into adversarial relationships between providers and care managers. These new capitated arrangements may reinforce the professional responsibility and autonomy of the caregiver, but they also can result in financial incentives to offer “less” care. The ethical implications of this issue need further study.

Implications Of Managed Care For Training And Academic Psychiatry

Although it is generally accepted that recent changes in the organization and funding of health services pose major challenges for all of academic medicine, these changes have profound implications for the future of academic psychiatry. Within the academic medical center (AMC), and in the “marketplace” of mental health services, psychiatry confronts serious structural disadvantages. As the indemnity insurance model of funding psychiatric services has shrunk or disappeared, academic departments have found it difficult to shift revenues from inpatient care and professional service contracts to cover the unfunded or underfunded costs of education, research, and community service. Budgetary limitations have sharply cut public-sector psychiatry, which has compromised the traditional relationship between public-sector and academic psychiatry. Finally, managed mental health care challenges the process of psychiatric education as defined by the Residency Review Committee in Psychiatry (RRC). This process mandates fixed rotations in traditional treatment settings (settings that do not necessarily prepare graduating residents with the relevant tools to work in managed care environments).

Also, the requirements of some insurers may make it difficult to incorporate residents within a managed care delivery system. Compounding these problems is the uncertainty about the future role of psychiatrists in the mental health care delivery system previously described, and the related controversy regarding psychiatric workforce requirements in the context of expanding managed care and contracting public mental health programs.

Workforce needs and academic training. Extrapolation of utilization and workforce experience within traditional HMOs has led some analysts to estimate that the demand for psychiatric services will be greatly diminished in a future U.S. health care system that relies heavily on the HMO model. The need for psychiatrists under primary care capitation (the traditional HMO model) would fall from the present estimated number of 35,163 to 9,451, a surplus of 25,712. If this estimate is correct, psychiatry has the highest rate of surplus physicians among specialties in the United States.
States. Because these projections would have dire consequences for the future mission of academic psychiatry to train new practitioners, and because they are of dubious validity, they require a critical analysis. Here we describe some of the issues that need to be addressed.

Projections of psychiatric workforce needs depend entirely on the design and structure of the health care systems on which they are based, including the model of access to care (gatekeeper versus self-referral), the distribution of responsibilities between primary care physicians and specialists (and among mental health disciplines), the redistribution of clinical services from inpatient to ambulatory care, and the method for determining the mental health benefit (as well as the mental health portion of general health care expenditures). In addition, realistic projections should account for state public and forensic mental health systems and the federal Department of Veterans Affairs (VA), which serve chronically and severely mentally ill, poor, and imprisoned persons. These groups typically have higher service use, greater social disability, and greater need for psychiatric, social, and medical services than the general population. If the needs of these populations were addressed in the projections, it is likely that the recent estimate of a surplus of psychiatrists would be inaccurate.

Psychiatrist workforce projections also need to consider the impact of managed behavioral health care carve-outs. If the arguments of advocates of these carve-outs are valid, carve-outs will lead to the distribution of more appropriate interventions across a larger number of patients with diagnosable disorders. There is the real possibility that some of the mentally ill persons who are now undetected and untreated in the community and in primary care settings will receive appropriate treatment.

Finally, there will continue to be a large number of patients who prefer to pay for their psychiatric care out of pocket to preserve confidentiality and choice of providers outside of a managed care system. This group could account for a significant amount of care by mental health professionals and thus must be considered in estimating future psychiatrist workforce needs.

Structural problems of academic psychiatry departments. By tradition, the primary mission of an academic department of psychiatry should be excellence in education, incorporating the advancement of knowledge through research, the transfer of new knowledge into clinical training, and the establishment of professional standards in clinical care. This mission has established a strong connection between the education of psychiatric residents and that of medical students, primary care residents, other mental health professionals, and advanced fellows. Following the withdrawal of federal support more than a decade ago, psychiatric residency education has been supported primarily by hospital revenues. As educational cost reimbursement from hospital clinical revenue such as Medicare has been re-
duced, and hospitals cease to be profit centers in the new managed health care delivery systems, this source of funding will be in jeopardy. Mechanisms to shift the source of funding for graduate medical education (including psychiatry) to the new and highly profitable managed health care systems must be developed rapidly. This “all-payer” system of support for graduate medical education would be fair, and is essential, in the face of projected Medicare cuts.

The influence of psychiatry within medical schools derives from the mandate of the Liaison Committee on Medical Education (LCME), which requires medical schools to offer education in psychiatry during the clinical years and to teach about human behavior during the preclinical years. In some universities, psychiatry has become a major research department. Unfortunately, there is no tradition of federal support for research in many psychiatry departments. The future of research on mental and addictive disorders is now constrained by the growth and defined mission of the National Institutes of Health (NIH). Because the United States has never addressed the unfunded costs of undergraduate medical education, and because of serious erosion in the traditional sources of funding (research and training grants and state support), the financial viability of academic departments of psychiatry will depend upon their ability to generate clinical income. In this regard, psychiatry is no different than other clinical specialties. At the same time, if faculty devote more time to generating clinical revenues, they will have less time for education and research, which are the (department’s) primary academic mission.

Of all of the clinical departments, psychiatry may face the most problematic future, unless medical schools reexamine the formulas under which they allocate funds to individual departments. In a more or less just world, medical school funding for clinical departments would be based on their teaching responsibilities in the preclinical and clinical years. In the context of efforts to reform medical education, deans and psychiatry department heads must address the optimal role of psychiatry in the undergraduate curriculum. Given the increased importance of the education of primary care physicians and the traditional contribution of psychiatry to teaching about human development, health and behavior, and the doctor/patient relationship, deans should be willing to cover a relative percentage of the costs of undergraduate education in psychiatry, and psychiatry faculty should take a fresh look at their role in educating tomorrow’s physicians.

Clinical challenges. Because of the increased importance of clinical service income (and managed care activity) to the financial viability of AMCs, the power of university hospital administrators has been enhanced relative to that of deans. Although hospitals are not required to staff teaching services or fund residency stipends in psychiatry, their support of
these programs is part of AMCs’ core mission. When general hospitals budget in usual and customary ways, psychiatric beds may be considered a net loss because they are allocated the indirect costs of ancillary services but do not generate much activity for the operating room or radiology suite. Yet psychiatric inpatient services, appropriately sized and staffed for their referral base, can be profitable with regard to their operating costs. As hospitals form integrated health systems, psychiatry’s profitability should be viewed in terms of the entire delivery system, not just inpatient services. The necessity and financial impact of psychiatry’s clinical contributions to other hospital services should be taken into account to the extent that psychiatry augments efforts to reduce lengths-of-stay and uncompensated care, permits treatment of difficult behavioral management cases, and collaborates with the complex, costly cases of combined physical and mental illness.

For academic psychiatry departments to thrive within our great teaching hospitals, hospital and academic leaders must define a common agenda. For instance, if hospitals are to reduce the indirect costs charged to psychiatric beds, they will have to readjust their internal cost structures in ways that will affect other clinical departments. In turn, psychiatry departments will need to structure their clinical programs to support the specialized areas of tertiary care required by hospitals. Proactive liaison programs to medical and surgical subspecialties are critical in this effort. Programs designed to divert psychiatric patients away from hospital emergency departments may be very helpful to hospitals as they seek to reduce uncompensated care. As hospitals downsize their inpatient capacities, there may be greater interest in alternative uses for the space. Effective partnerships with hospitals might aid in the development of intensive ambulatory programs (day and evening hospitals) as well as low-intensity residential units managed by hospitals, with medical direction provided by psychiatry departments. Finally, to facilitate the negotiation of managed care contracts with a large ambulatory base, hospitals might financially help psychiatry departments to establish an outpatient network of mental health service providers. The large patient base can help to ensure reasonable rates of occupancy for inpatient psychiatry beds, as well as a flow of patients to other psychiatric services.

Similar issues confront psychiatry departments in faculty practice plans. Overhead charges to support the medical school and the university and costs for the actual administration of the practice are anticompetitive in the managed care marketplace. In systems that charge business expenses to departments on the basis of billing transactions rather than as a percentage of charges, psychiatry pays a disproportionate share of the operating costs. Where the costs of malpractice are distributed across departments to shield some departments from the confiscatory rates associated with the specialty, academic psychiatry is taxed well above the rate that its competition in the
Community pays. Psychiatry departments generally are required to pay the full costs of physician extenders and ambulatory office space, while hospital-based physicians and surgical specialists generally are not charged for these costs within their hospital practice environment. In schools with a flat rather than a graduated dean’s tax, higher-earning specialties enjoy some advantages over their primary care and psychiatry colleagues. Within the faculty practice environment, psychiatry can be valuable to primary care clinicians because of the high rate of psychiatric and substance abuse problems in primary care practice. Availability of timely, responsive mental health consultation in primary care offices should enhance the competitive advantage of these practices as they seek to lower utilization rates, because patients with untreated psychiatric disorders tend to use a higher volume of services. In this context, appropriate mental health care offsets the cost of general health care (at least in traditional fee-for-service).

**Residency training.** The RRC regularly reviews all psychiatric residency training programs and mandates the specific clinical experiences required for continued accreditation. These requirements include specific rotations through inpatient and outpatient psychiatric treatment units, as well as distinct clinical specialty experiences and experience in neurology and medicine. There is now a need to adapt training experiences to the changing clinical environment. In the context of managed care, with its markedly reduced lengths-of-stay, the inpatient training rotation provides an acute, high-turnover experience in crisis intervention and stabilization. Response to pharmacological and psychosocial/behavioral treatments now occurs within less intensive treatment settings. Inpatient psychiatry no longer provides an opportunity to get to know patients through episodes of illness and recovery, to develop a therapeutic relationship, and to learn the effects of sequential treatment interventions over time.

The RRC needs to reconsider its present requirements of a relatively rigid series of treatment settings for psychiatric residency training to permit equivalent experiences in a variety of treatment settings. One alternative is for residents to be assigned a required number of patients to be followed in faculty/resident teams across the continuum of care from ambulatory to intermediate to inpatient settings within a managed mental health system. Training programs would be required to offer training in all levels of service and therefore would have to organize or participate in an integrated mental health care delivery system (which could restrict rotations to training sites that are part of the integrated delivery system). The shift in the managed care model toward brief psychotherapy and acute inpatient treatment depends on more active, directive intervention and, consequently, requires higher levels of skill and confidence in rapid treatment decision making and execution. This will pose a major challenge to traditional training
models that emphasize long-term psychotherapy.

Psychiatry departments need to encourage commitment to support education and training in their contracts with managed care companies. They need to assure full inclusion of residents as providers to equip the next generation of practitioners with appropriate skills and experience. The RRC also needs to assess the present capacity of training programs to prepare residents for work in managed care settings. Residents will need to have more experience in ambulatory behavioral medicine settings that provide consultation to primary care and the medical and surgical specialties. They should receive training in administrative psychiatry with special reference to managed care issues, such as the organization and financing of mental health services, utilization and clinical management, and clinical ethics. For chronically ill patients, residents need to learn new models based upon principles of psychosocial rehabilitation. Residents need a thorough grounding in medication management, including patients being treated by nonmedical mental health clinicians. Psychotherapy training needs to include a variety of brief individual, family, and group therapies, especially treatments whose efficacy has been validated in well-controlled studies. Finally, because some patients will continue to need and be able to afford long-term individual psychotherapy, all graduating residents should continue to have supervised experience with this modality.

The future of academic psychiatry. Managed care companies and academic departments of psychiatry have not yet begun to approach their convergent interests. As competition increases, managed care companies will be challenged to demonstrate high quality as well as lower costs. The field is ripe for controlled clinical trials, as well as services research that looks at outcomes as well as the cost of services. A number of academic psychiatry departments could take the lead in this effort. If the federal government cannot fund these studies, they could be mandated in a manner similar to the research costs borne by pharmaceutical companies before they receive approval to market a new product. Since it is much more profitable for insurance companies to fund managed care services than indemnity insurance products, some portion of the profits could be designated for outcomes research.

Academic psychiatry departments and managed care organizations also have a common stake in educational programs offered by the former. In the context of mental health service carve-outs, managed care companies need psychiatrists and other mental health professionals who have been trained to work under capitated and other models of managed care. Thus, it is in their interest to bring the clinical/educational programs of academic psychiatry departments into their network of service providers. In turn, academic psychiatry departments need to orient their training programs to-
ward managed care, develop price-competitive services, and parcel out the added costs of education. These costs will have to be borne by subsidies from AMCs and/or the managed care companies. For this reason, academic departments will be accountable for the results of their educational programs. They will need to be creative and innovative. They may, for example, develop programs to reeducate practicing psychiatrists and other mental health professionals, thus enabling these practitioners to function more effectively in managed care systems and reducing some of the costs of oversight now being borne by managed care companies.

Finally, in jurisdictions in which a mutually beneficial relationship between public-sector (including the VA) and academic psychiatry continues to exist, academic departments need to engage the full resources of AMCs and the advocacy community to maintain this important connection. In the era of managed care, academic psychiatry must not forget the public sector. Indeed, the public sector might offer academic departments the opportunity to craft managed care arrangements for Medicaid recipients and uninsured persons with state departments of mental health.23

**Concluding comments.** Psychiatrists must recognize that in the future a substantial proportion of clinical care for mentally ill and addicted patients will be provided by primary care physicians and other mental health professionals in managed care systems. In the context of the emerging behavioral health care system, which we have described in this paper, the future of the specialty may depend upon psychiatrists’ adaptive development of the roles of specialist consultant, mental health educator, and clinical and administrative leader.

Psychiatrists are well suited to meet the challenge of providing clinical care in an organized delivery system because of their training in the delivery of care through multidisciplinary teams and their historical roles in community mental health centers, psychiatric hospitals, and AMCs. Surprisingly, the profession has been slow to appreciate the opportunities present in this situation because it has been caught between advocates of the traditional solo practitioner role and advocates of health system change. The resolution of this ambivalence will help to determine the future of the specialty as well as the content and direction of its training programs.

**NOTES**

Benefits, Utilization Patterns, and Costs,” in Managed Mental Health Care, 29-52.
3. T.E. Bittker, “The Emergence of Prepaid Psychiatry,” in Managed Mental Health Care, 3-10.
4. K.B. Wells et al., “Detection of Depressive Disorder for Patients Receiving Prepaid or Fee-for-Service Care: Results from the Medical Outcomes Study,” Journal of the American Medical Association 262, no. 23 (1989): 3298-3302.
13. Ibid.
15. Liaison Committee on Medical Education, “Functions and Structure of a Medical School” (Washington: Liaison Committee on Medical Education, 1995), 13-14.